

Inventor: Frank Poma
Serial No. 10/064,075
February 3, 2004

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend the claims as follows:

1. (currently amended) A panel having intrinsic columnar support and intrinsic means for facilitating placement of the panel for tilt-up wall construction of a high strength structure, comprising:

a concrete construction panel, including means for securing the panel to a ~~monolithic one-piece single element~~ footer located at the bottom of the panel;

a plurality of intrinsic columnar supports in each panel, comprising means for reinforcing the supports centrally located within the supports, wherein

said means for reinforcing the supports which terminate in one or more aligning straight-ended generally vertical rod members for placement in complementary voids in the footer,

said rod member is adapted for welding attachment to the footer, and

said footer allowing voids that correspond to the ends coming out of the bottom walls to be pre-drilled into the footer; and

means for facilitating the placement of the panels in cooperative connection with the means for reinforcing the supports.

2. (original) The panel of claim 1, wherein the means for reinforcement comprises a plurality of vertical reinforcement bars.

3. (amended) The panel of claim 2, wherein the means for securing the panel comprises a horizontal structural weld plate on an inside face of the bottom portion of the panel, and

an extension of at least a portion of the vertical reinforcement bar below the bottom of the panel, whereby welding of the weld plate provides structural reinforcement of the panel.

4. (original) The panel of claim 3, wherein the extension of the vertical reinforcement bar comprises approximately six inches of a number 8 reinforcement bar.

5. (original) The panel of claim 3, wherein the panel further comprises one or more weld plates located generally at the top of the intrinsic columnar supports.

6. (original) The panel of claim 1, wherein the means for facilitating is located approximately two-thirds up the height of the panel.

7. (original) The panel of claim 4, wherein the means for facilitating is located approximately two-thirds up the height of the panel.

8. (original) The panel of claim 7, wherein the means for facilitating is at least one receptor for a lifting eyelet, whereby the panel is positioned by a means for lifting the panel using the extension of the reinforcement bar and at least one lifting eyelet located within the receptor as lifting points.

Inventor: Frank Poma
Serial No. 10/064,075
February 3, 2004

9. (original) The panel of claim 1, further comprising at least one weld plate located on the left side and the right side of the panel.

10. (currently amended) The panel of claim 1, wherein the sides of the panel are chamfered to accommodate one or more aligning separate spacers between panels.

11. (original) The panel of claim 1, wherein the panel is approximately 12 feet long and approximately 30 feet high, and the columnar supports are approximately every four feet across the panel.

12. (currently amended) A method for building a tilt-up wall structure, comprising the steps of:

forming a first panel and a second panel, each panel comprising:

at least one chamfered side; and

a plurality of straight reinforcement bar extensions at intervals on the bottom of each panel;

providing at least one monolithic footer ~~with holes complementary to the extensions;~~

filling the holes with grout; and

placing each panel on the footer so that the extensions are located within the holes,

said footer allowing voids that correspond to the extensions coming out of the bottom walls to be pre-drilled into the footer.

13. (original) The method of claim 12, further comprising the step of inserting shims of high compressive strength between the footer and the panel before the step of placing the panel on the footer.

14. (original) The method of claim 12, wherein at least a portion of the grout in the holes is displaced by the extensions so that the grout bonds the rods of the panel to the footer and seals the projections against corrosion.

15. (original) The method of claim 12, further comprising the step of:
placing at least one pin on a side of the first panel;
placing the second panel adjacent to the pin; and
filling space formed between the first panel and the second panel above the pin with an appropriate material.

16. (original) The method of claim 15, wherein the first panel and the second panel each further comprise metal plates located at least approximately halfway up the chamfered side, further comprising the step of welding the plates together before the step of filling the space.

17. (original) The method of claim 16, further comprising the step of caulking the space between the first panel and the second panel after the step of welding the plates.

18. (original) The method of claim 15, wherein the pin comprises a material of high compressive strength.

19. (original) The method of claim 15, wherein the appropriate material comprises at least one of the following group: epoxy, caulk and grout.

20. (currently amended) A unitary columnar insert for inclusion between the chamfered sides of two adjacent vertical pre-cast panels in a structure, comprising a faceted portion with facets complementary to chamfering on the sides of the panels;

an inner arm connected to the faceted portion; and

an outer T-shaped form connected to the faceted portion on the opposite side of the portion to the inner arm,

whereby the insert is located separately placed between vertical pre-cast panels for improvement of alignment of the panels, whereby at least one panel has already been erected.

21. (original) The insert of claim 20, wherein the faceted portion is hollow.

22. (original) The insert of claim 21, wherein the inner arm is hollow.

23. (currently amended) The insert of claim 22, wherein ~~the a~~ base of the outer T-shaped form is hollow.

24. (re-presented – formerly dependent claim 15) A method for building a tilt-up wall structure, comprising the steps of:

forming a first panel and a second panel, each panel comprising:

at least one chamfered side; and

a plurality of reinforcement bar extensions at intervals on the bottom of each panel;

providing at least one footer with holes complementary to the extensions;

filling the holes with grout;

placing each panel on the footer so that the extensions are located within the holes;

placing at least one pin on a side of the first panel;

placing the second panel adjacent to the pin; and

filling space formed between the first panel and the second panel above the pin with an appropriate material.

25. (re-presented – formerly dependent claim 16) The method of claim 24, wherein the first panel and the second panel each further comprise metal plates located at least approximately halfway up the chamfered side, further comprising the step of welding the plates together before the step of filling the space.

26. (re-presented – formerly dependent claim 17) The method of claim 25, further comprising the step of caulking the space between the first panel and the second panel after the step of welding the plates.

Inventor: Frank Poma
Serial No. 10/064,075
February 3, 2004

27. (re-presented – formerly dependent claim 18) The method of claim 24, wherein the pin comprises a material of high compressive strength.

28. (re-presented – formerly dependent claim 19) The method of claim 24, wherein the appropriate material comprises at least one of the following group: epoxy, caulk and grout.

29. (re-presented – formerly amended dependent claim 15) A method for building a tilt-up wall structure, comprising the steps of:

forming a first panel and a second panel, each panel comprising:

at least one chamfered side; and

a plurality of straight reinforcement bar extensions at intervals on the bottom of each panel;

providing at least one monolithic footer with holes complementary to the extensions;

filling the holes with grout; and

placing each panel on the footer so that the extensions are located within the holes, further comprising the step of:

placing at least one pin on a side of the first panel;

placing the second panel adjacent to the pin; and

filling space formed between the first panel and the second panel above the pin with an appropriate material.

30. (re-presented – formerly amended dependent claim 16) The method of claim 29, wherein the first panel and the second panel each further comprise metal plates located at least

Inventor: Frank Poma
Serial No. 10/064,075
February 3, 2004

approximately halfway up the chamfered side, further comprising the step of welding the plates together before the step of filling the space.

31. (re-presented – formerly amended dependent claim 17) The method of claim 30, further comprising the step of caulking the space between the first panel and the second panel after the step of welding the plates.

32. (re-presented – formerly amended dependent claim 18) The method of claim 29, wherein the pin comprises a material of high compressive strength.

33. (re-presented – formerly amended dependent claim 19) The method of claim 29, wherein the appropriate material comprises at least one of the following group: epoxy, caulk and grout.